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**NOTICE OF ALLOWANCE  
AND ISSUE FEE DUE**

Note attached communication from the Examiner  
 This notice is issued in view of applicant's communication filed \_\_\_\_\_

SERIES CODE/SERIAL NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT	DATE MAILED
07/323,665	04/24/89	010	WANG, G	184 09/06/91
First Named Applicant				REDDY, VEMURI B.
TITLE OF INVENTION				FSH

	ATTY'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEES DUE	DATE DUE
1	IGHETERODIME	435-069-400	876	UTILITY	NO	\$1050.00	12/06/91

**THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT.  
PROSECUTION ON THE MERITS IS CLOSED.**

**THE ISSUE FEE MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS  
APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED.**

**HOW TO RESPOND TO THIS NOTICE:**

I. Review the SMALL ENTITY Status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the Status is changed, pay twice the amount of the FEE DUE shown above and notify the Patent and Trademark Office of the change in status, or  
B. If the Status is the same, pay the FEE DUE shown above.

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A. Pay FEE DUE shown above, or  
B. File verified statement of Small Entity Status before, or with, payment of 1/2 the FEE DUE shown above.

II. Part B of this notice should be completed and returned to the Patent and Trademark Office (PTO) with your ISSUE FEE. Even if the ISSUE FEE has already been paid by a charge to deposit account, Part B should be completed and returned. If you are charging the ISSUE FEE to your deposit account, Part C of this notice should also be completed and returned.

III. All communications regarding this application must give series code (or filing date), serial number and batch number. Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER: Patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees.**

07/323,665



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SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
07/323,665	04/24/89	REDDY	V IGHETERODIME
			EXAMINER
		WANG, G	
		ART UNIT	PAPER NUMBER
		184	16
DATE MAILED: 09/06/91			

**NOTICE OF ALLOWABILITY**

**PART I.**

- This communication is responsive to the Amendment F filed on July 15, 1991.
- All the claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice Of Allowance And Issue Fee Due or other appropriate communication will be sent in due course.
- The allowed claims are 16 and 18-26.
- The drawings filed on \_\_\_\_\_ are acceptable.
- Acknowledgment is made of the claim for priority under 35 U.S.C. 119. The certified copy has [ ] been received. [ ] not been received. [ ] been filed in parent application Serial No. \_\_\_\_\_, filed on \_\_\_\_\_.
- Note the attached Examiner's Amendment.
- Note the attached Examiner Interview Summary Record, PTOL-413.
- Note the attached Examiner's Statement of Reasons for Allowance.
- Note the attached NOTICE OF REFERENCES CITED, PTO-892.
- Note the attached INFORMATION DISCLOSURE CITATION, PTO-1449.

**PART II.**

A SHORTENED STATUTORY PERIOD FOR RESPONSE to comply with the requirements noted below is set to EXPIRE THREE MONTHS FROM THE "DATE MAILED" indicated on this form. Failure to timely comply will result in the ABANDONMENT of this application. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

- Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION, PTO-152, which discloses that the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.
- APPLICANT MUST MAKE THE DRAWING CHANGES INDICATED BELOW IN THE MANNER SET FORTH ON THE REVERSE SIDE OF THIS PAPER.
  - Drawing informalities are indicated on the NOTICE RE PATENT DRAWINGS, PTO-948, attached hereto or to Paper No. \_\_\_\_\_. CORRECTION IS REQUIRED.
  - The proposed drawing correction filed on \_\_\_\_\_ has been approved by the examiner. CORRECTION IS REQUIRED.
  - Approved drawing corrections are described by the examiner in the attached EXAMINER'S AMENDMENT. CORRECTION IS REQUIRED.
  - Formal drawings are now REQUIRED.

Any response to this letter should include in the upper right hand corner, the following information from the NOTICE OF ALLOWANCE AND ISSUE FEE DUE: ISSUE BATCH NUMBER, DATE OF THE NOTICE OF ALLOWANCE, AND SERIAL NUMBER.

**Attachments:**

- Examiner's Amendment
- Examiner Interview Summary Record, PTOL- 413
- Reasons for Allowance
- Notice of References Cited, PTO-892
- Information Disclosure Citation, PTO-1449
- Notice of Informal Application, PTO-152
- Notice re Patent Drawings, PTO-948
- Listing of Bonded Draftsmen
- Other

Gian Wang

JACQUELINE STONE  
PRIMARY EXAMINER  
ART UNIT 184

Claim 16. A mammalian cell comprising a transformed cell transformed by at least a first expression vector, said transformed cell being capable of producing a biologically active heterodimeric human fertility hormone comprised of an alpha subunit and a beta subunit, each said subunit being encoded in nature by a distinct mRNA, said hormone being human FSH, the alpha subunit of said hormone being encoded by said first expression vector and the beta subunit of said hormone being encoded by said first expression vector or by a second expression vector by which said transformed cell is also transformed, or progeny of said transformed cell containing the genetic information imparted by said vector or vectors.

Claim 18. A mammalian cell in accordance with claim 16, said second expression vector being autonomously replicating.

Claim 19. A mammalian cell in accordance with claim 16, said first vector being a plasmid.

Claim 20. A mammalian cell in accordance with claim 16, the alpha and beta subunits of said heterodimeric hormone being encoded by said first expression vector.

Claim 21. A mammalian cell in accordance with claim 16, transcription of the alpha and beta subunits of said

heterodimeric hormone being under the control of the mouse metallothionein promoter.

5 Claim 22. A mammalian cell in accordance with claim 16, said cell being a mouse cell.

6 Claim 23. A mammalian cell in accordance with claim 16, said first expression vector being autonomously replicating.

9 Claim 24. A method for producing the biologically active human fertility hormone FSH comprising culturing host mammalian cells in accordance with claim 26 in which said first expression vector encodes the alpha subunit of said FSH and said second expression vector encodes the beta subunit of said FSH.

10 Claim 25. The method of claim 24, wherein each said expression vector is autonomously replicating.

7 Claim 26. A mammalian cell in accordance with claim 16, wherein said beta subunit is encoded by a second expression vector, distinct from said first expression vector, said transformed cell also being transformed by said second expression vector.

126,871D